

REMARKS

Claims 1-11 and 21- 24 remain before the Examiner for reconsideration. Claims 12, 13, and 15-20 have been canceled. Claims 21-24 have been added. No new matter has been added, and support for the amendments is found in the specification as originally filed.

DOUBLE PATENTING OBJECTIONS

Claims 15-20 have been objected to under 37 CFR 1.75 as being substantial duplicate of claims 1, 2, 3, 8, 12 and 13. This objection should be withdrawn in view of the remarks made herein.

Claims 15-20 were filed to provide a varied scope of current Claims 1-13 and include that the at least one attachment member is “disposed on and extending from the body” as shown in Fig. 55. The varied scope of the invention is based on the originally filed Claims 1-14 of Application 09/077,020 which were subject to a restriction requirement. In particular, Claim 15 adds a further limitation that the “at least one attachment member” is not only disposed on the body, but also is “extending from the body.”

However, Claim 15 has been canceled and the subject matter related to the attachment member “extending from the body” has been added as a dependent Claim 24. Accordingly, Applicants request the allowance of Claim 24.

REJECTIONS UNDER 35 USC 102(b)

Claims 1-20 stand rejected under 35 USC 102(b) as being anticipated by Neer et al. This rejection should be withdrawn in view of the remarks made herein.

The Office Action alleges that Neer teaches an injector with a syringe retaining mechanism (125) for use with a syringe (30) with a plunger (54) and a flange (37), the retaining mechanism comprises an attachment member (127) with a ridge (130), projections (150) and tabs (131, 133), and an encoding mechanism (188).

Claims 1 and 14 have been amended and include subject matter from canceled Claims 12 and 13. Claims 1 and 14 are directed to a syringe and has been amended to include “a plunger sealing engaged within the body” and “at least one attachment member disposed on the rear end or front end of the body.” Neer does not disclose these elements of Applicants’ invention.

Firstly, the syringe 32 of Neer is distinct and separate from the pressure jacket 31. The syringe 32 of Neer includes that:

The syringe 32 includes a syringe case 50 formed of a single piece of molded plastic material, a pressure cap 51, a tubing collar 52 (FIG. 3) and a plunger 54 (FIGS. 3-5). The syringe case 50 includes a cylindrical syringe body 55 having an open proximate end 56 and a remote end 58 to which is integrally formed a conical front wall 57. The front wall 57 is truncated at its forward end, to which is integrally formed an elongated neck 59 extending from the wall 57 at the center thereof. (*Emphasis added*, Col. 7, lines 62 – Col. 8, line 2).

Whereas, “[t]he pressure jacket 31 has a generally cylindrical inner bore 33 extending therethrough from a proximate end 34 adjacent the door 25 to a remote end 35 of the pressure jacket 31 toward the front of the unit 20. The bore 33 is dimensioned so as to receive through the remote end 35 the disposable syringe 32 and to support the syringe against expansion from fluid pressure within such fluid pressure may range to more than a thousand psi.” (Col. 7, lines 38-46). Further, the “jacket 31 is firmly and rigidly attached to the door 25 with a pair of screws 43.” (*Emphasis Added*, Col. 7, lines 56-57).

Thus, in Neer there is a difference between the syringe case 50 and the pressure jacket 31, and the two components are very distinct. “When the syringe 32 is contained in the jacket 31, it is surrounded by the jacket 31 and merely supported by the jacket 31 if there is expansion caused by the fluid pressure within as the syringe 32 expands against the jacket wall.” (col. 7, lines 33-37). Thus, the syringe 32 does not include the pressure jacket 31 as its body, as otherwise alleged in the Office Action.

Further, Neer discloses that the plunger is disposed within the syringe, and not within the pressure jacket. Therefore, there is a distinction between “the plunger sealingly engaged within the body” and the attachment member disposed ... on the body of Applicants’ invention and what Neer discloses.

Secondly, in Neer, the pin 150 is not a projection as disclosed in Applicants’ invention. Applicants’ invention of Claim 1 includes “at least one attachment member disposed on the rear end of or the front end of the body, the at least one attachment member adapted to be releasably retained by the syringe retaining mechanism of the injector regardless of the orientation of the syringe with respect to the injector.” Neer discloses that :

The translational movement of the axes 40 and 41 with respect to the axis 112 is achieved by a fixed cylindrical cam follower or pin 150 which projects outwardly from the fixed housing portion 22 behind the ring 127 and into a cam slot 154 formed therein. The slot 154 is shaped so that the axes 40 and 41 which remain fixed with respect to the ring 127, along with the door 25, the jacket 31, the syringe 32 and all of the structure mutually carried thereby, are moved in relation to the axis 112 of the shaft 105 and the other structure mutually carried by the housing 22, as the mechanism 125 is rotated. Col. 12, lines 12-23).

(Also see Figs. 2 and 6 that illustrate the pin 150 disposed on the injector and not on the syringe.)

Further, Neer discloses that:

When a syringe 32 is inserted into the jacket 31 when the plunger 54 is at its rearmost position toward the proximate end 56 of the syringe body 55, the coupling 96 is in a position adjacent the proximate end 56 of the syringe body 55 and projecting rearwardly therebeyond. When in such a position, engagement between the jaws 114 and the coupling 96 is brought about by translational movement between the position shown in FIG. 4 and that shown in FIG. 5. In the unlocked or disengaged position shown in FIG. 4, the axes 40 and 41 of the jacket 31 and the syringe 32, respectively, as well as the center of the opening 39 of the door 25, lie spaced from and parallel to the axis 112 of the shaft 105 as shown in FIG. 4. In the locked or engaged position, the axis 112 of the shaft 105 is slightly eccentric relative to the axes 40 and 41 of the jacket 31 and syringe 32, respectively, as shown in FIG. 5. This translational movement, the engagement and disengagement between the coupling 96 and the jaws 114 and the 45 degrees rotational movement which secures the cap 51 to the pressure jacket 31 by engagement of the threads 85 and 86 are brought about by operation of a translating and locking mechanism 125, which is best understood by reference to FIGS. 2-9. (Col. 10, line 54 – Col. 11, lines 9).

Thirdly in Neer, there are no tabs as disclosed in Applicants' invention. "The Office Action alleges that the tabs are detailed in the rejection and "are disposed on the syringe retaining mechanism and match up with the and engage similar projections on the body 31, which are unlabeled but clearly visible in the drawings." However, Neer discloses the spring wire retaining clip 131 having a pair of looped ends 133 which are part of a translating and locking mechanism 125. The translating and locking mechanism 125 is part of the pressure jacket that is connected to the housing. Neer discloses that the "translating and locking mechanism 125 includes a cam and locking ring 127 which is rotatably retained in a circular recess 126 in the back of the door 25. The ring 127 has a generally semi-circular groove 130 in the back surface thereof for receiving a spring wire retaining clip 131 having a pair of looped ends 133 which extend through a pair of slots 134 in the rim of the ring 127 and into a selected one of three pair of diametrically opposed notches 135, 136 and 137 in the inner wall of the rim of the recess 126 in the door 25. (Col. 11, lines 10-19). This is very different than the tabs of Applicants' invention.

Neer is different in the following distinct ways. Firstly, the clip 131 and loop ends 133 of Neer are disposed in the injector and are not related to any part of the syringe body 50. Secondly, the clip 131 and loop ends 133 cause rotation of the jacket relative to the syringe body to enable the syringe to be released from the injector. However, the syringe must be at a specific orientation relative to the injector so that the rotation permits the engagement or release from the jacket. (See col. 10, lines 54 to col. 11, lines 9). In fact, the orientation in the syringe critical. Neer discloses that:

Accordingly, when the syringe 32 is inserted in the jacket 31, the proximate end 56 of the syringe case 50 extends through and is surrounded by the inner periphery 149 of the ring 127. Asymmetric keyway structure, preferably in the form of three slots or notches 151, 152 and 153 (FIG. 6) are provided in the edge of the proximate end 56 of the body 55 of the syringe case 50. The spacings between adjacent pairs of the notches 151-153 differ from each other. Formed integrally of the ring 127 and projecting inwardly from the inner periphery 149 thereof are three tabs or keys 155, 156 and 157. These tabs 155-157 are spaced so as to fit into the respective notches 151-153 in the proximate end 56 of the body 55 of the syringe case 50 so as to rotate the syringe 32 as the mechanism 125 is rotated through actuation of the handle 138. Because the notches 151-153 and the tabs 155-157 are unequally spaced, they can only engage each other when the syringe 32 is inserted into the jacket 31 in one and only one orientation. (*Emphasis Added*, col. 11, lines 43-63)

Accordingly, Neer does not disclose Applicants' invention, accordingly Claim 1 is believed to be allowable. Further Claims 2-11 are not disclosed by Neer, and further depend from Claim 1 either directly or indirectly, which as discussed is believed to be allowable. Thus, Claims 2-11 are believed to be allowable. Therefore, reconsideration of the Examiner's rejections of Claims 1-11 is requested.

Regarding Claim 14, Claim 14 has been amended to include subject matter similar to that of amended Claim 1. Amended Claim 14 is directed to a syringe for use with an injector comprising a syringe retaining mechanism, the syringe comprising, "a plunger sealingly engaged within the body; at least one attachment member disposed on the rearward end or frontward end of the body." Neer does not disclose these novel features of Applicants' invention.

Further, Neer discloses a syringe that the tabs 155-157 fit into notches 151-153 so as to rotate the syringe 32 as the mechanism 125 is rotated through actuation of the handle 138 (see col. 11, lines 50-58). Essentially, the handle 138 is required, and Neer does not disclose at least one rotation member comprising "a recess formed in the body for releasably engaging a corresponding member of the syringe retaining mechanism of the injector." Neer therefore does not disclose every element of the claimed invention in as complete detail as is contained in the claim. Reconsideration of the Examiner's rejection is requested.

In view of the above remarks, the Applicants respectfully request that the Examiner withdraw the rejections of the claims, indicate the allowability of the claims and arrange for an official Notice of Allowance to be issued in due course.

Respectfully submitted,

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